PNM Resources®

San Juan Generating Station

State Alternative for BART

September 10, 2013

State Alternative Scenario Description

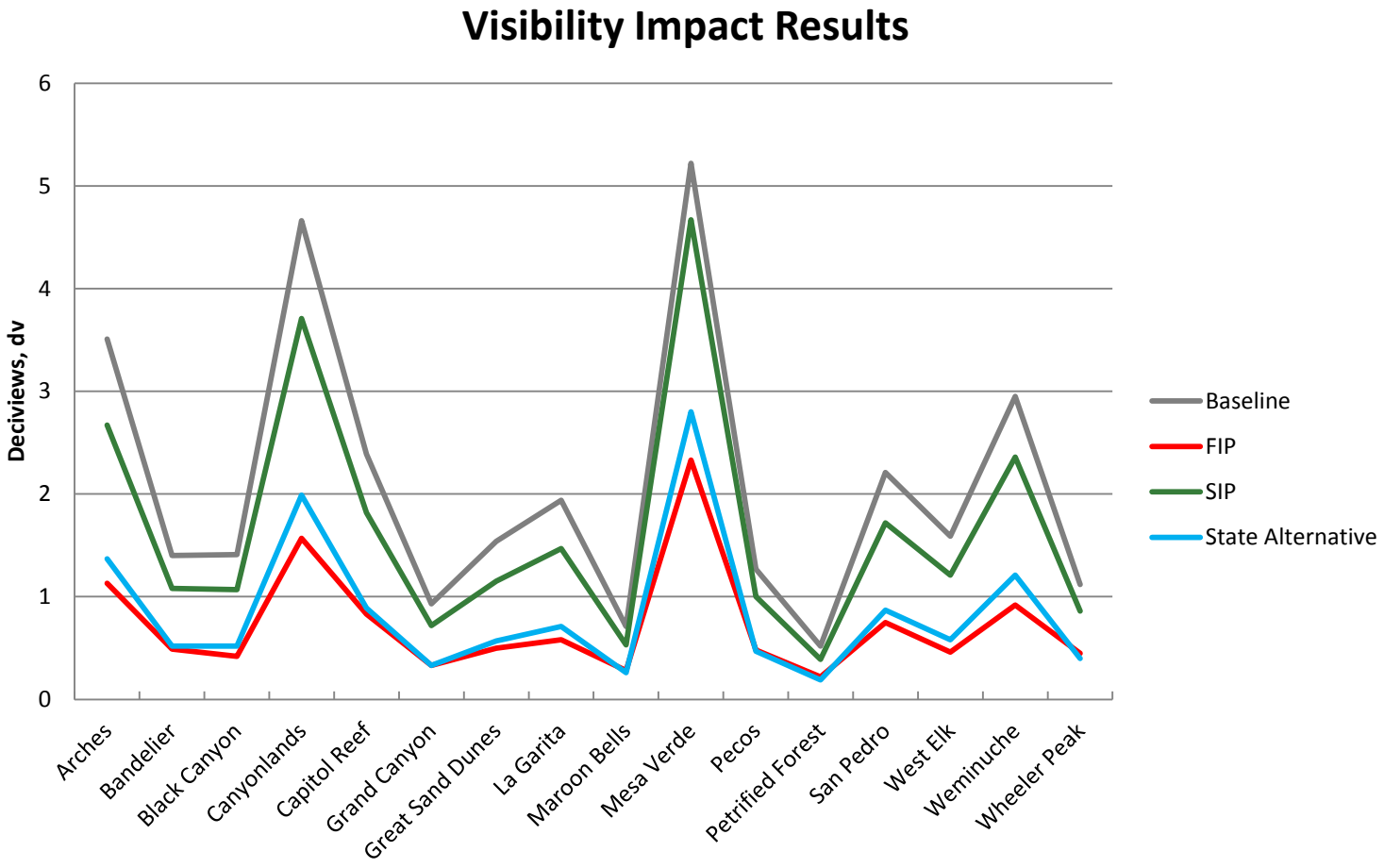
- Unit 1 and Unit 4 Operating with SNCR Technology
- Unit 2 and Unit 3 Retired
- NO_x Limit of 0.23 lb/Mbtu (w/ optimization testing to try to achieve lower limit)
- New SO_2 limit of 0.10 lb/Mbtu
- NSR Permit will be modified to incorporate NO_x and SO_2 limits and require Unit shutdowns

Estimated SJGS Emissions Reductions for State Alternative

Scenario	NO_x (tpy)	SO_2 (tpy)	PM (tpy)	CO (tpy)	VOC (tpy)	CO_2[1] (tpy)	Hg[2] (lb/yr)
Current	21000	10500	2380	33507	210	14,699,968	0.0842
New Alternative	8,011	3,483	1,184	18,615	104	7,314,801	84.0
% Reduction from Current	62%	67%	50%	44%	50%	50%	50%

Note:
[1]CO_2 numbers from the 2011 EPA Clean Air Markets Division database based upon 2011 operating data.
[2]Hg numbers based on 1.2 lb/MBtu Mercury and Air Toxics Standard (MATS) Limit.

Visibility Results Curves

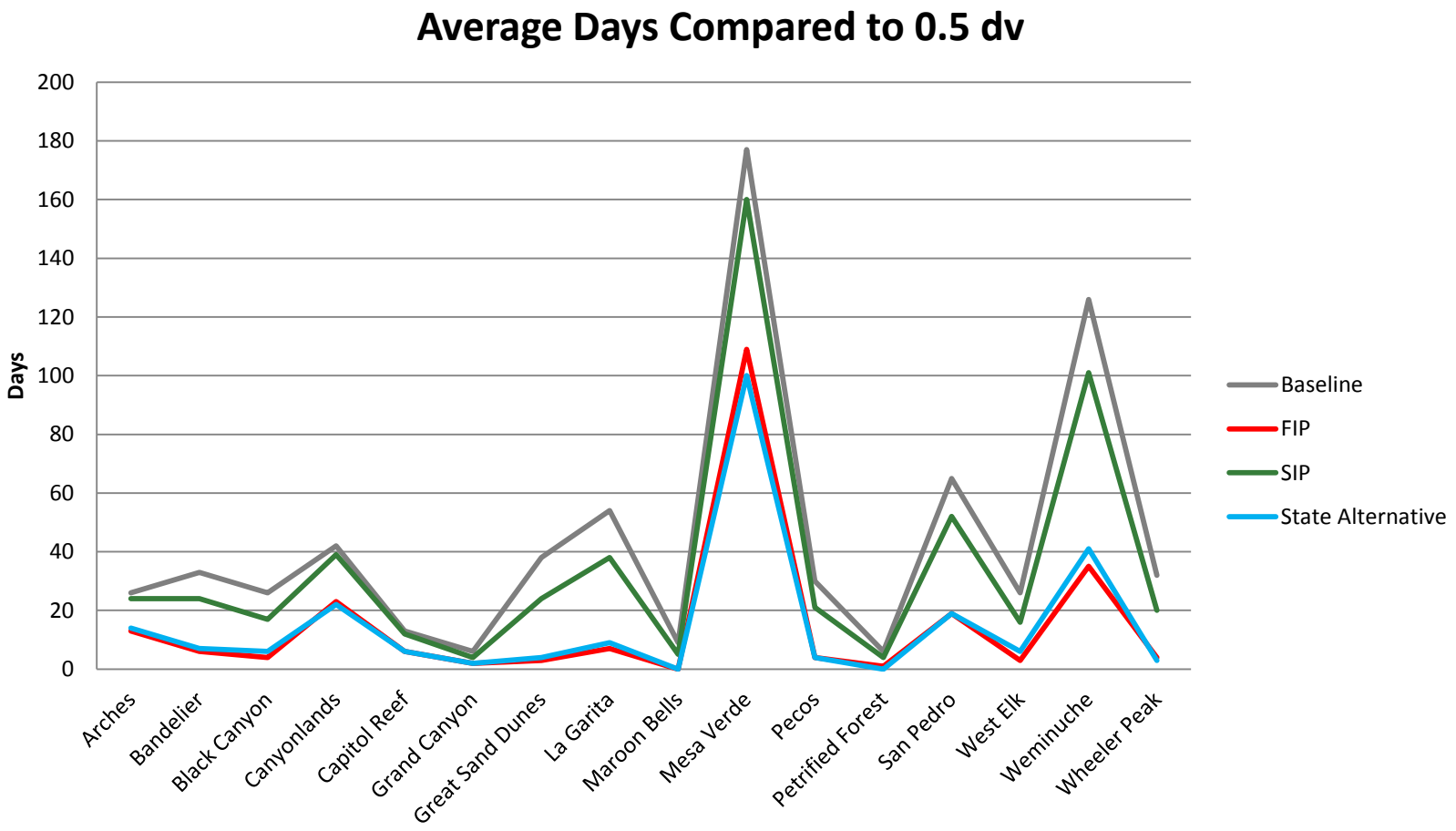


- State Alternative is similar to the FIP

Average Days Over 0.5 dv

Class I Area	Baseline	FIP	SIP	State Alternative
Arches	26	13	24	14
Bandelier	33	6	24	7
Black Canyon	26	4	17	6
Canyonlands	42	23	39	22
Capitol Reef	13	6	12	6
Grand Canyon	6	2	4	2
Great Sand Dunes	38	3	24	4
La Garita	54	7	38	9
Maroon Bells	9	0	5	0
Mesa Verde	177	109	160	100
Pecos	30	4	21	4
Petrified Forest	6	1	4	0
San Pedro	65	19	52	19
West Elk	26	3	16	6
Weminuche	126	35	101	41
Wheeler Peak	32	4	20	3

SJGS Average Days Results Curve (0.5 dv)



Overall Environmental Benefits

- Reduction in Criteria Pollutant Annual Emissions
- Reductions in CO_2 and Hg- each by 50%
- 53% (estimated) Reduction in Water Consumption
- 48% (estimated) Reduction in Coal Ash Generation
- Reduction in Truck Traffic (hauling coal ash back to the mine)
- Reduction in Visible Plumes (two stacks vs four)

Future Generation – Combustion Turbine

- New Natural Gas-Fired Simple Cycle Combustion Turbine(s)
- Approximate size 150-200 MW
- Emissions of NO_x Limited to 75 tons
- Best Available Control Technology will be Considered

Compliance Timeline

Year	Month	Action
2013	September	NM Environmental Improvement Board Approves SIP
	December	EPA Determines Completeness of SIP
2014	April	EPA Proposes Action on the SIP
	October	EPA Final Action on the SIP
2016	January	Units 1 and 4 SNCR Installation (January 31, 2016)
	April	SNCR Performance Testing and Optimization Begins
	May	Begin Collection of NOx Emissions Data
2017	February	End of Long-Term SNCR Performance Test
	December	Units 2 and 3 Retirement (December 31, 2017)